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Division of
Environmental Services
Department of Water
Resources

901 P Street
Sacramento, Ca. 95814

Mailing Address:
Post Office Box 942836
Sacramento, CA 94236-
0001

General Information



Zebra Mussel - Early Detection Monitoring

Early Detection Monitoring

Early detection monitoring is conducted at high risk rivers and reservoirs in the Central Valley watershed. Sampling primarily consists of suspending an artificial substrate for zebra mussels to attach onto and then checking this substrate for the presence of zebra mussels every month. The artificial substrate consists of a plexiglass plate and 2 PVC pipes filled with fabric mesh. These components are attached to a line of rope that is weighted at one end and can be suspended from a variety of structures located in the waterbody, including boat docks/slips, pipes, and piers. The artificial substrate monitoring is conducted by private citizens, marina staff, DWR staff, and staff from other agencies.

Why Monitor for Zebra Mussels?

Early Detection

The objective of field monitoring is to detect zebra mussels during the initial stage of establishment. In order to eradicate zebra mussels from a waterbody, we need to begin control measures when the population is small and isolated. Early detection is the key to successful eradication. A rapid response plan will be in place and will contain guidelines and instructions for responding to a zebra mussel invasion.

Prevent Spread

Our ability to successfully eradicate or control an infestation of zebra mussels is more feasible and less costly if the population is isolated to a single lake as opposed to widespread in the watershed. Therefore, containing new zebra mussel populations is extremely important. In the event zebra mussels are discovered in a lake, the California Department of Fish and Game, along with other state and federal agencies, will take steps to prevent the mussel from spreading to other lakes and rivers. These steps may include boat cleaning at the infested lake, increasing public education and awareness efforts, and perhaps modifying the use of the infested lake.

Time to Prepare

Early detection provides water facility managers with an early warning system. They have some time to retrofit the facility to ensure uninterrupted water deliveries. Facility managers will need to change facility operating procedures to adapt to and minimize the impacts of zebra mussels. Such measures may include retrofitting intake valves with customized filters designed to screen out mussels, painting irritant coatings on surfaces to prevent mussels from settling, periodically flushing the system with high concentrations of chemicals (such as chlorine) to kill attached mussels, or periodically pressure washing all surfaces with hot water to kill and remove attached mussels. All of these measures are

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Zebra Mussel Information:

- [DFG - Quagga Mussels](#)
- [NPS Release - ZM's at Lake Mead!](#)
- [Rapid Response Plan \(RRP\)](#)
- [RRP Appendices](#)
- [FAQ's - ZM's at Lake Mead](#)
- [Zebra Mussel Watch](#)
- [What is a Zebra Mussel?](#)
- [Program Overview](#)
- [Early Detection Monitoring](#)
- [How to Report Sightings](#)
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- [What can I do?](#)
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Related Links:

- [Aquatic Ecology](#)
- [100th Meridian Initiative](#)
- [US Army Corps of Engineers - Zebra Mussel Research Program](#)
- [US Geological Survey - Zebra Mussel Information](#)

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very costly and may require temporary facility shutdowns.



The sampler is composed of two PVC tubes (that have mesh inside) and a plexiglass plate. The sampler hangs vertically in the water column. The sampler is secured in a location with minimal human interference, such as in a private slip or an area with employee access only.

If possible, the sampler is placed near the boat launch and the fuel dock. Zebra mussels are most likely to be knocked off of boat hulls in these areas.



California Early Detection Monitoring Sites



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